

Step1: $V_{in}=48V$, $V_{out}=12V$, $I_{out}=0A$



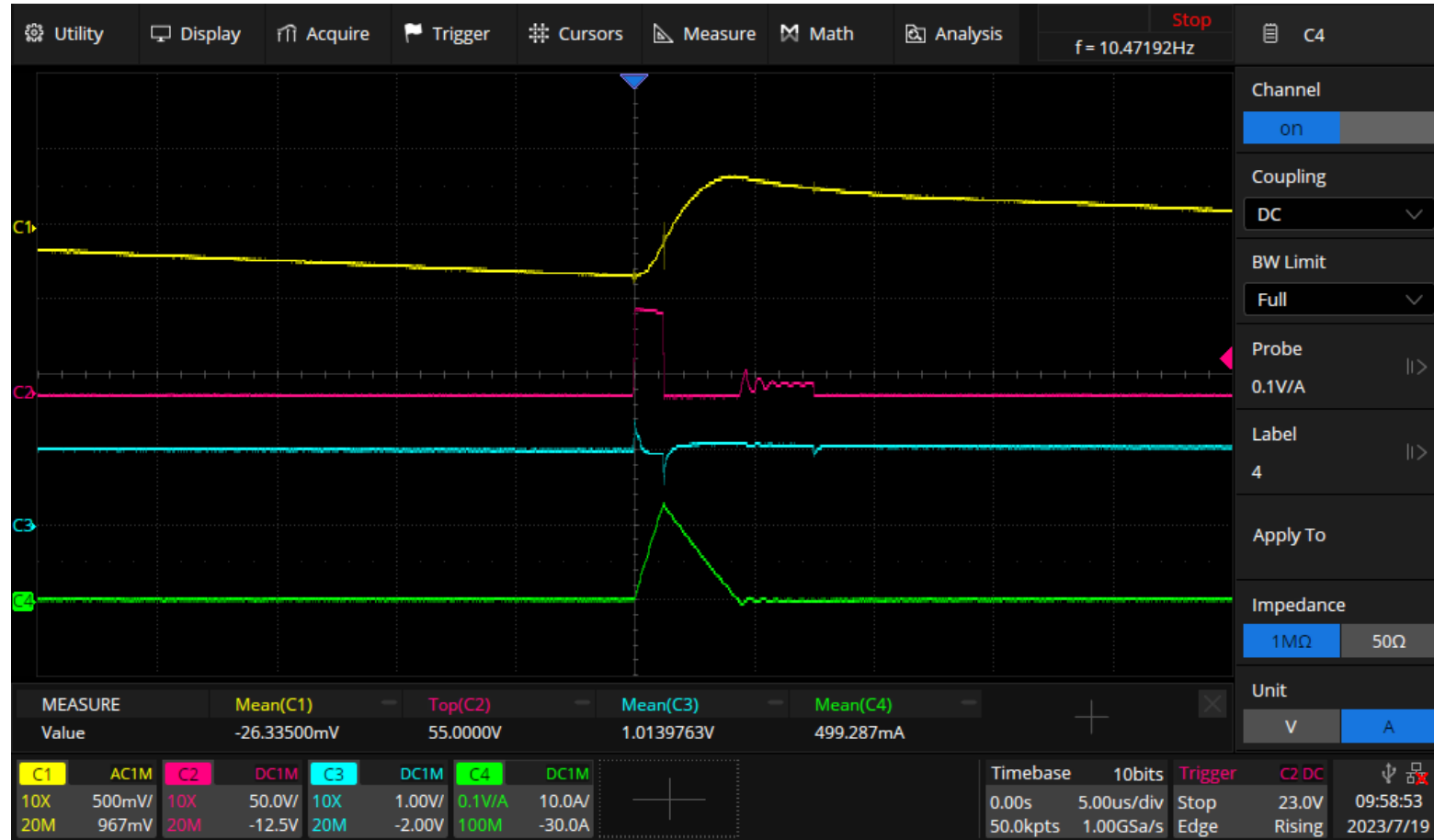
CH1: V_{out} (AC coupling)

CH2: $Q1 V_g$

CH3: FB

CH4: Inductor current

Step2: $V_{in}=48V$, $V_{out}=12V$, $I_{out}=0.3A$



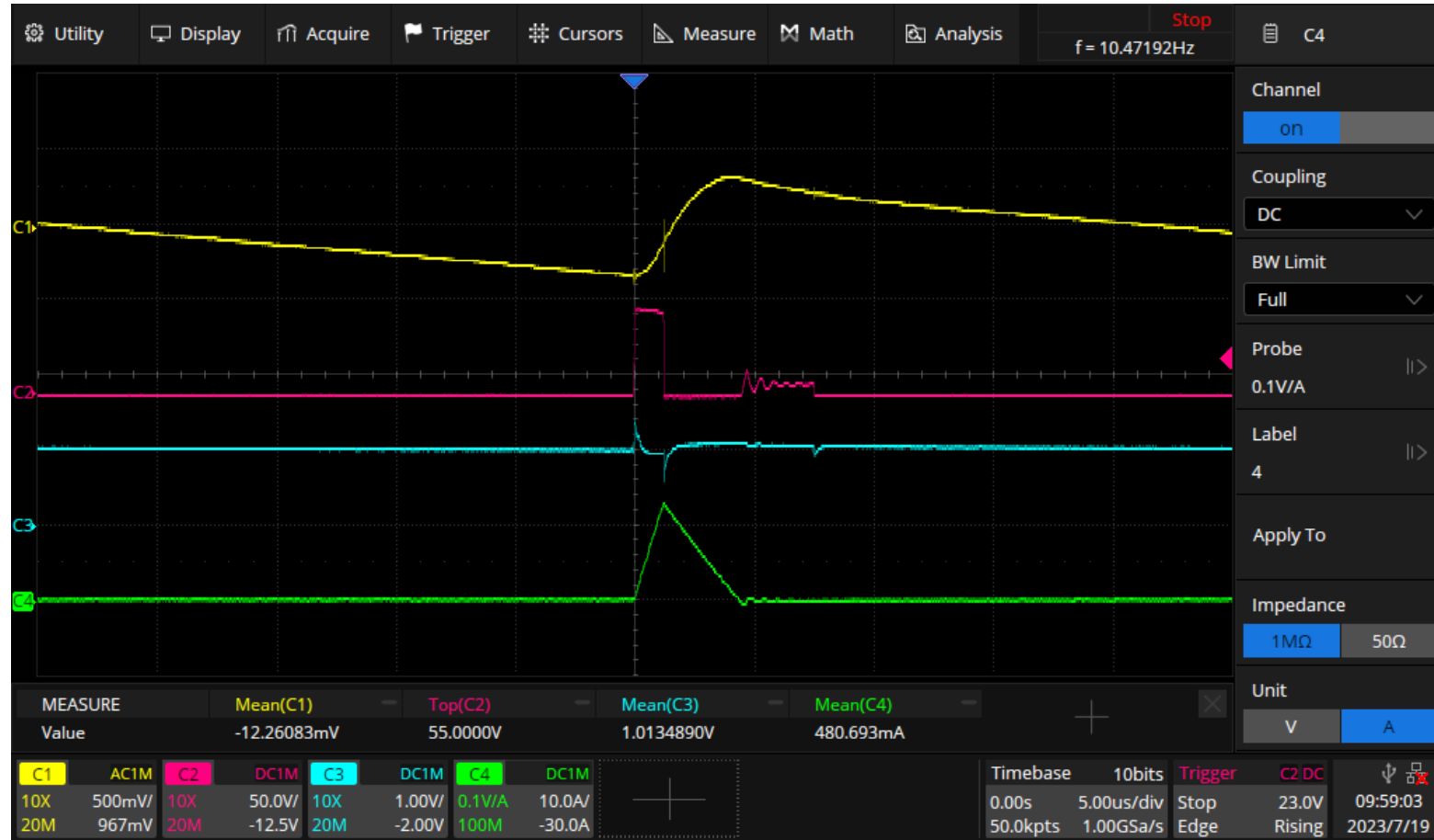
CH1: V_{out} (AC coupling)

CH2: $Q1 V_g$

CH3: FB

CH4: Inductor current

Step3: $V_{in}=48V$, $V_{out}=12V$, $I_{out}=0.6A$



CH1: V_{out} (AC coupling)

CH2: $Q1 V_g$

CH3: FB

CH4: Inductor current

Step4: $V_{in}=48V$, $V_{out}=12V$, $I_{out}=0.9A$



CH1: V_{out} (AC coupling)

CH2: $Q1 V_g$

CH3: FB

CH4: Inductor current

Step5: $V_{in}=48V$, $V_{out}=12V$, $I_{out}=1.2A$



CH1: V_{out} (AC coupling)

CH2: $Q1 V_g$

CH3: FB

CH4: Inductor current

Step6: $V_{in}=48V$, $V_{out}=12V$, $I_{out}=1.5A$



CH1: V_{out} (AC coupling)

CH2: $Q1 V_g$

CH3: FB

CH4: Inductor current

Step7: $V_{in}=48V$, $V_{out}=12V$, $I_{out}=1.8A$



CH1:Vout(AC coupling)

CH2:Q1Vg

CH3:FB

CH4:Inductor current

Step8: $V_{in}=48V$, $V_{out}=12V$, $I_{out}=2.1A$



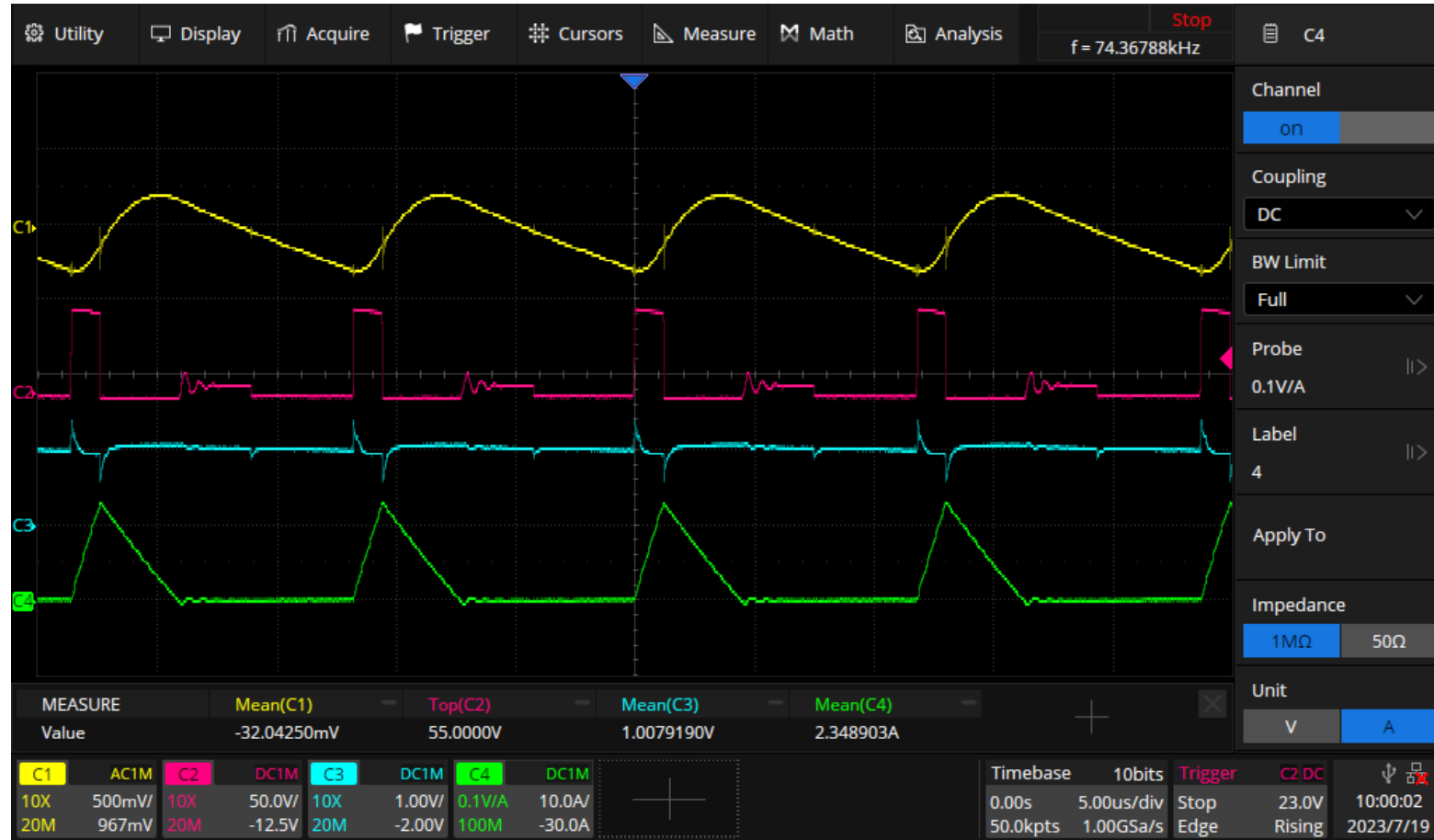
CH1: V_{out} (AC coupling)

CH2: $Q1 V_g$

CH3: FB

CH4: Inductor current

Step9: $V_{in}=48V$, $V_{out}=12V$, $I_{out}=2.4A$



CH1:Vout(AC coupling)

CH2:Q1Vg

CH3:FB

CH4:Inductor current

Step10: $V_{in}=48V$, $V_{out}=12V$, $I_{out}=2.7A$



CH1: V_{out} (AC coupling)

CH2: $Q1 V_g$

CH3: FB

CH4: Inductor current

Step11: $V_{in}=48V$, $V_{out}=12V$, $I_{out}=3A$



CH1: V_{out} (AC coupling)

CH2: Q1 V_g

CH3: FB

CH4: Inductor current

Step12: $V_{in}=48V$, $V_{out}=12V$, $I_{out}=2.7A$



CH1: V_{out} (AC coupling)

CH2: $Q1 V_g$

CH3: FB

CH4: Inductor current

Step13: $V_{in}=48V$, $V_{out}=12V$, $I_{out}=2.4A$



CH1: V_{out} (AC coupling)

CH2: Q1 V_g

CH3: FB

CH4: Inductor current

Step14: $V_{in}=48V$, $V_{out}=12V$, $I_{out}=2.1A$



CH1: V_{out} (AC coupling)

CH2: Q1 V_g

CH3: FB

CH4: Inductor current

Step15: $V_{in}=48V$, $V_{out}=12V$, $I_{out}=1.8A$



CH1: V_{out} (AC coupling)

CH2: Q1 V_g

CH3: FB

CH4: Inductor current

Step16: $V_{in}=48V$, $V_{out}=12V$, $I_{out}=1.5A$



CH1: V_{out} (AC coupling)

CH2: Q1 V_g

CH3: FB

CH4: Inductor current

Step17: $V_{in}=48V$, $V_{out}=12V$, $I_{out}=1.2A$



CH1: V_{out} (AC coupling)

CH2: Q1 V_g

CH3: FB

CH4: Inductor current

Step18: $V_{in}=48V$, $V_{out}=12V$, $I_{out}=0.9A$



CH1: V_{out} (AC coupling)

CH2: Q1 V_g

CH3: FB

CH4: Inductor current

Step19: $V_{in}=48V$, $V_{out}=12V$, $I_{out}=0.6A$



CH1: V_{out} (AC coupling)

CH2: $Q1 V_g$

CH3: FB

CH4: Inductor current

Step20: $V_{in}=48V$, $V_{out}=12V$, $I_{out}=0.3A$



CH1: V_{out} (AC coupling)

CH2: $Q1 V_g$

CH3: FB

CH4: Inductor current

Step21: $V_{in}=48V$, $V_{out}=12V$, $I_{out}=0A$



CH1: V_{out} (AC coupling)

CH2: $Q1 V_g$

CH3: FB

CH4: Inductor current